Diary

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Week 1

Looked for the best conditions for algae Cultiviting.
Two-step PCR for Sushi peptide, failed.
Never try fancy things during rookie-period.

Week 2

Got the sequence of pelB-linker-Sushi, constructed clonings of pelB-linker-Sushi in plasmid pSB1C3&pSB1A3, standardized part finished.

Week 3-4

Enlarge the cultivation of algae. Measure the growth curve for the first trial.

Week 5

Went to Lake Tai in Wuhan, visited Aquatic Station and met with professions; did surveys.
I think we did got a great many of information and need to change some details of our project.

Week 6

Finished the clones of TEV protease.

Week 7

Finished the clones of Sushi only and pelB-Sushi in pET21a.
Tried to find a new method to test the concentration of algae, which could avoid using Noise isolating chambers. Failed.

Week 8

Synthesized Sushi peptide arrived. Tested the killing efficiency of Sushi peptide, but the result turned out to be none.
Algae are really magic species for when you cultivate them they refuse to grow, while when you try to kill them they refuse to die.

Week 8-10

Managed to go through articles on killing algae and on secretion system. We specifically focused on articles talking about antibiotics, since the prokaryotic Microcysis aeruginosa shares some membrane features with bacteria. We elaborate several antibiotics and Lanqiu tested them, lysozyme, polymyxin and pectinase all performed well. We chose lysozyme for the concern of expression in *E.coli*.

Week 11

Tested the killing efficiency of purified lysozyme. Found Minimum Inhibition Concentration (MIC).
Finished the clones of lysozyme, lysozyme-LARD in pET21a. Induced expression and test the

killing efficiency of engineered bacteria. Resistant system and transporters are under construction.